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IS 6541 (1972): Code for hygienic conditions for establishment and maintenance of mid-day school meal programmes [FAD 15: Food Hygiene, Safety Management and Other Systems]



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Indian Standard

CODE FOR HYGIENIC CONDITIONS FOR ESTABLISHMENT AND MAINTENANCE OF MIDDAY SCHOOL MEAL PROGRAMMES

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CODE FOR HYGIENIC CONDITIONS FOR ESTABLISHMENT AND MAINTENANCE OF MIDDAY SCHOOL MEAL PROGRAMMES

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Indian Standard

CODE FOR HYGIENIC CONDITIONS FOR ESTABLISHMENT AND MAINTENANCE OF MIDDAY SCHOOL MEAL PROGRAMMES

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 28 April 1972, after the draft finalized by the Food Hygiene, Sampling and Analysis Sectional Committee had been approved by the Agricultural and Food Products Division Council.

0.2 Food of the children not only lacks in the essential components of a 'balanced diet' but also in the amount of 'calories' needed for subsistence of the body. During recent years, attempts are being made by several local authorities, state governments and even voluntary organizations to supplement the diet of children in the school with a 'midday meal' under a 'midday school meal' or 'school lunch' programmes.

0.2.1 The meals supplied are usually of different types like milk; baked products like bread, bun, biscuits; fruits or cooked rice with some side dishes. Baked products can be supplied in a wrapper and may be directly received from bakeries. Even fruits and milk do not pose a problem, as they can be supplied by the suppliers direct. However, the supply of cooked cereals is associated with certain health hazards. It is generally not possible to cook and prepare food in each school unless the operations are on a small scale and when the beneficiaries belong to one or two schools. But in large scale programmes for thousands of children covering several schools located in different parts of the town, food has to be cooked and prepared in centrally situated kitchen (s). Besides, the food so prepared has to be transported to different schools by a suitable motor transport vehicle, and served to children in the schools. These create several public health problems. There have been instances where outbreaks of food poisoning — chemical and bacterial—have occurred through such institutions. Hence a need has arisen to prescribe certain basic standards for hygienic upkeep of such central kitchens, food transport vehicles, as well as maintenance of hygienic conditions at the place of distribution.

0.3 In preparing the standard, conditions prevailing in this country have been taken into consideration, and the things felt impracticable of implementation, though ideal, have been generally avoided.

0.4 The basic principles of hygiene underlying the technical advice in the code should be applied in general, by all those authorities who are running the midday school meal programme and other supplementary and feeding programmes with appropriate modifications to suit their local conditions or needs and also the type of food supplied.

1. SCOPE

1.1 This standard prescribes the general hygienic conditions required for establishment and maintenance of central kitchens, food transport vehicles and food distribution centres in the school for large-scale 'midday school meal' programmes, with a view to ensuring that the beneficiaries of these programmes are supplied with food that has been cooked, prepared, distributed and served under hygienic conditions and to avoid as far as possible, occurrence of food infections or poisonings through the programme.

2. TERMINOLOGY

2.0 For the purpose of this standard, the following definitions shall apply.

2.1 Beneficiaries — School children for whom the midday meals are served for consumption.

2.2 Building — The central kitchen.

2.3 Central Kitchen — A premise where food is cooked and prepared for distribution to schools for consumption by school children under the 'midday school meal' programme.

2.4 Food Distribution Centre — A place, premises, a building or a room in a school where the cooked food is received from central kitchen and stored for service to school children under the 'midday school meal' programme.

2.5 Food Distribution Hall — A place or a room in the school where the meals are actually served to the school children under the programme.

2.6 Food Handler — Any person who handles food or drink, and who is employed under this programme either on payment of wages or without wages.

2.7 Food Transport Vehicle — Motor transport vehicle, intended to carry and transport the food, cooked and prepared in the central kitchen to the different schools for purposes of serving to the children under the 'midday school meal' programme.

2.7.1 Food Compartment — That portion of food transport vehicle that is used for carrying the vessels containing food.

2.8 Health Officer — The Health Officer or any other officer of the Health Department, authorized by the Health Officer of the town, city, district or state on his behalf.

2.9 Supervisor — Any person who is authorized to supervise the cooking operations, transporting or serving of food.

3. SITE

3.1 As far as possible, the site for central kitchen shall not be a reclaimed land; if it is a reclaimed land, reclamation should not have been done within 10 years before the construction of the central kitchen. The site for the central kitchen shall preferably be situated in an open, clean and healthy locality free from sources of obnoxious fumes, smokes, odours and excess dust.

3.2 The site should be at least 1 m above the surrounding ground level to avoid flooding.

3.3 The site shall be such that the place is not infested with flies or vermin and not located within 20 m from a site, where dumping of rubbish is done, or any other place which is likely to be a source of nuisance due to breeding of flies and vermin.

4. BUILDINGS

4.1 The building shall not directly abutt on any road or thoroughfare. There shall be adequate open space in front of the building so as to allow the food vans to be loaded/unloaded inside the premises.

4.2 The building and fixtures shall be so constructed and fitted that all parts of both building and fixtures shall be capable of being readily cleansed.

4.3 The building shall be of a permanent structure, soundly constructed and all the walls and roof shall be of suitable heat resisting material and shall be waterproof.

4.4 The whole building shall be so constructed that it is rodentproof.

4.5 The building shall consist of at least two store rooms, one for perishable articles and the other for non-perishable articles, a preparation room, a kitchen, mixing room, a loading room, a wash-room for utensils and a utensil sterilization room besides sanitary conveniences as prescribed and office rooms. Depending upon the type of fuel used, provision should be made for store room for coal or firewood or diesel oil. If cooking is

done by steam, a boiler room with necessary appurtenances should be provided. In addition, garages for food transport vehicles with washing arrangements shall be provided in the compound detached from central kitchen.

5. FLOOR

5.1 The floors of all rooms in the building shall be at least half a metre above the surrounding ground level and be free from cracks, without open joints, impervious, non-slip and capable of being easily cleansed and should slope evenly towards the drainage outlet.

5.2 All floors shall be kept clean and free from litter at all times. Dustless method of floor cleaning shall always be employed.

6. WALLS

6.1 The interior surface of the walls should be smooth, non-absorbent, washable, of light colour and maintained clean and in sound repair at all times.

6.2 The walls of all rooms in which food or drink is prepared, cooked, mixed and loaded and utensils are washed, shall have a smooth washable surface either of glazed tiles or mosaic dado up to a height of 2 m from the floor.

7. CEILING

7.1 Ceiling of all the rooms shall be clean, dustproof, non-leaky and free from cracks. It should be such that it does not harbour vermins.

8. DOORS AND WINDOWS

8.1 All openings to the outer air including windows and ventilators shall be effectively screened with flyproof mesh with tight fitting screens free from holes, and all doors shall be self closing. All screens and doors to the outer air shall open outwards. Other methods approved by the Health Officer shall be employed to ensure freedom from flies.

9. LIGHTING

9.1 All rooms in which food is prepared, cooked, mixed and loaded and in which utensils are washed shall be well lit. If artificial light sources are provided they shall be to the satisfaction of the Health Officer.

10. VENTILATION

10.1 All rooms in which food is prepared, cooked, mixed and loaded or in which utensils are washed shall be adequately ventilated so as to be

reasonably free of disagreeable odours. Ventilation equipment supplementary to windows and doors, such as adequate exhaust fans or stove hoods, shall be provided as needed to the satisfaction of the Health Officer.

11. WATER SUPPLY

11.1 An adequate supply of safe water as may be necessary shall be provided. Single supply instead of dual supply should always be preferred.

11.2 Where there is no continuous piped protected water supply, proper receptacles made of galvanized iron or other suitable material as approved by the Health Officer, for the storage of adequate safe water for purposes of preparation and cooking food and washing utensils, shall be provided and the water shall be stored in such a manner as approved by the Health Officer.

11.3 Underground reservoirs and overhead tanks, wherever provided, shall always be kept clean and periodically disinfected by an approved method as prescribed by the Health Officer.

11.4 Adequate running water shall be made available to all rooms in which food is prepared, cooked, and mixed and utensils are washed.

11.5 No unfiltered water or water of doubtful quality shall be allowed to be used for purposes of preparing, cooking or washing unless it has been certified to be safe and wholesome, by the Health Officer. If at any time the water from the pumps or tanks on analysis is found to be harmful, the kitchen shall be kept closed, till the water is made safe chemically and bacteriologically.

12. DRAINAGE

12.1 Sufficient means of drainage shall be provided. All liquid wastes shall be drained into a sewer through the intervention of gully traps. No surface drains shall be allowed in the preparation room, kitchen, mixing rooms and through the store rooms.

12.2 Where no sewer exists the drainage arrangements, as approved by the Health Officer, shall be provided.

13. REFUSE AND GARBAGE DISPOSAL

13.1 All refuse, kitchen garbage, etc, shall be collected in a proper receptacle of such size and such material as approved by the Health Officer and it shall be fitted with a tight fitting cover which shall be closed automatically by operating a food pedal.

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13.2 No such receptacle shall be kept within the rooms where food is prepared, mixed, stored and served. However, local garbage bins of small size for each area may be allowed subject to the approval of the Health Officer.

13.3 Such receptacle shall be emptied periodically and not less than four times a day and shall be kept always clean and free from flies and vermin. Each time it is emptied, it should be disinfected with a suitable disinfectant as approved by the Health Officer.

13.4 All refuse including kitchen garbage shall be disposed of in a manner that is not detrimental to the cleanliness of the surroundings.

14. SANITARY CONVENIENCES

14.1 Every central kitchen shall be provided with adequate toilet facilities for its employees suitably located in the building and complied with the city plumbing code or laws. One urinal, one water closet and one bath with shower, are minimum requisites. If the number of employees at any one time are more than 20, one urinal for every 20 employees or part thereof, and one water closet and bath for every 40 employees or part thereof, shall be provided (*see IS: 1172-1971**).

14.2 There shall be intervening room or vestibule between any toilet room and any room in which food or drink is prepared, mixed or stored or in which the utensils are washed, handled or stored. The toilet room doors shall be provided with tight fitting, self closing doors. Adequate ventilation shall be provided to direct odour away from kitchen, etc.

14.3 The toilet room shall be well lighted and ventilated.

14.4 Durable, legible signs shall be pasted conspicuously in each toilet for directing employees to wash their hands with soap and water before resuming their work after each visit to the toilet. Such signs may preferably be stencilled on the wall in the regional language.

14.5 Hand washing facilities, including hot and cold running water, soap and individuals cloth or paper towels shall be provided by the management for the employees exclusively. These washing facilities shall be adequate and adjacent to or in the toilet rooms. Taps for utensils washings shall not be accepted as washing facilities for personnel.

15. STORE ROOMS

15.1 There shall be two store rooms, one for perishable articles like vegetables, etc and another for non-perishables.

*Code for basic requirements for water supply, drainage and sanitation (*second revision*).

15.2 Each room shall be of the size not less than 4×3 m.

15.3 All perishable articles shall be kept on a raised platform and spread over in proper receptacles to avoid spoilage.

15.3.1 No spoiled vegetables or fruits or any food article shall be kept in the room, and everyday such perished articles shall be sorted out and removed and disposed off in such a way as approved by the Health Officer.

15.4 All non-perishable articles like cereals and pulses, etc, shall be stored in galvanized iron drums with tight fitting lids or porcelain jars with lids or any other suitable containers with lids and kept on a raised platform or wooden bench.

16. PREPARATION ROOM

16.1 It shall consist of two sections one for preparation and the other for washing, with an intercommunication with or without door. Each such section shall be not less than the size of 15 m^2 with no side measuring less than 3 m.

16.2 The preparation section shall have a platform not less than the size of 2×3 m and a height of 75 cm above the ground level for the use of cutting, and cleaning of vegetables. Only rust proof knives shall be used for cutting and peeling of vegetable, etc. All leafy vegetables shall be washed thoroughly in potable running water before peeling and cutting.

16.2.1 The surface of the platform shall be smooth, impervious, washable free from cracks and dents and shall be always in good repair. A table of the same size with greater height with impervious top may be permissible instead, if the employees want to sit on the stools and work.

16.3 The platform or the table shall be washed, cleaned and dried after every operation, to keep it free from dust.

16.3.1 Sieving and cleaning of cereals and pulses, etc, may also be done on the same platform or table provided it is washed, cleansed and dried after each such operation.

16.4 The washing section of the preparation room shall have a tap or taps with running water, to wash vegetables, cereals, pulses, etc.

16.4.1 There shall be a raised curb wall up to a height of minimum 20 cm enclosing a washing place measuring minimum $1\frac{1}{2} \times 1$ m.

16.4.2 The washing enclosure shall be connected to the building drain by suitable drainage arrangements to draw off washed water.

16.4.3 Washing of raw food materials shall be done in suitable vessels and washed water should be drained off into the washing enclosure.

17. KITCHEN

17.1 The kitchen shall be sufficiently spacious and should be of suitable size in proportion with the number of meals to be prepared each time.

17.2 The minimum size of the kitchen shall not be less than 20 m² and with no side measuring less than 4 m.

17.3 Adequate and satisfactory ventilation of the kitchen shall be provided. Ventilation hoods or adequate alternative means, for the removal of steam fumes, smells, intense heat from the cooking range or stoves, smoke from fuel used, by exhaust fans or otherwise, shall be provided in addition to natural ventilation devices, wherever required, by the Health Officer.

17.4 No animal or birds shall be kept in or allowed into any part of the building.

17.5 All enclosed spaces which provide harbourage for rodents shall be eliminated. All intersections between double walls and floors shall be protected against gnawing by rats, by installation of approved ratproof material and all openings in floors, walls and ceiling through which pipes, cables or conduits pass, shall be properly sealed with snugly fitting collars or approved ratproof material, and the propagation of rats and invasion or infestation of the premises by them shall be permanently prevented.

18. MIXING ROOM

18.1 The room shall be not less than the size of 20 m² with none of the sides measuring less than 4 m.

18.2 There shall be a mixing trough of the size of 2 × 1½ m in the middle of the room with a curb wall of all sides, of a height of 20 cm.

18.2.1 The inner side and the bottom of the mixing trough shall be lined by a non-corrosive metal, preferably stainless steel.

18.2.2 The metal lining of the trough shall be free from dents and cracks and shall always be in good repair.

18.2.3 The mixing trough shall be provided with draw off arrangements at one of its corners to drain off the wash water.

18.3 After every operation of mixing and loading of the mixed food into vessels, the trough shall be washed thoroughly and treated with bactericidal detergent and washed again with hot water and dried. It shall always be kept clean while not in use. Vessels shall be kept inverted, if possible so as to prevent dust entering into them.

18.3.1 The mixing trough shall not be used for any purpose other than mixing food.

18.4 Where the number of meals to be supplied is less than 500; the mixing may be done in the vessels if it is possible.

18.4.1 Where it is not proposed to mix the cereals with any other dish but supplied separately to the beneficiaries, the mixing room may be eliminated.

19. LOADING ROOM

19.1 The loading room shall be not less than the size of 20 m² with none of the sides measuring less than 4 m and it shall be connected to the mixing room through a door.

19.2 The flooring of this room shall be on the level of the flooring of the food transport vehicle for easy loading.

19.3 It shall be provided with self closing wide flyproof doors on the loading side.

20. UTENSILS AND EQUIPMENT

20.1 All utensils shall be made of smooth and non-corrosive material and shall be easily accessible for cleaning.

20.2 Brass utensils used for preparing, cooking, storing and mixing shall be properly lined with tin, the tin lining being kept always in good repair.

20.3 There shall be provided and maintained sufficient number of utensils and other equipment necessary for efficient running of the central kitchens.

20.4 There shall be sufficient and adequate storage facilities for all utensils and suitable shelving for sauce pans and other small cooking utensils.

20.5 Prompt replacement shall be done of those utensils and equipment which are unfit for use.

20.6 All utensils after use shall be cleaned and washed thoroughly and kept upside down for drying till their subsequent use for the following day's lunch.

21. BACTERICIDAL TREATMENT OF UTENSILS AND EQUIPMENT

21.1 A separate room of the size not less than 20 m² shall be provided for washing and sterilizing the utensils.

21.2 Adequate equipment for cleaning of utensils shall be provided.

21.3 Utensils used in the preparation and cooking of food, shall be thoroughly cleansed and effectively subjected to an approved bactericidal process after each usage and immediately following the day's operation.

Drying with cloth shall, as far as possible, be avoided; but if used, such cloth shall be clean and it shall not be used for any other purpose.

21.4 Bactericidal treatment of cooking utensils after preliminary cleaning and rinsing shall be secured either by maintaining the temperature at the final rinse water at 80°C or by steaming the utensils in a steam chest or large container. Equipment which is too large to immerse, may be treated as given below:

- a) Steam from a hose, in the case of equipment in which steam can be confined;
- b) By rinsing with boiling water thoroughly; and
- c) By spraying or swabbing with chlorine solution of at least 50 ppm.

21.5 After bactericidal treatment, the utensils shall be stored in clean dry place protected from flies, dust and other contamination and shall be handled in such a manner so as to prevent contamination.

22. STORAGE AND HANDLING OF EQUIPMENT

22.1 All containers and utensils shall be stored at a height not less than 20 cm above the floor in a clean, dry place protected from flies splash, dust, overhead leakage, and other contamination. Wherever practicable containers and utensils shall be covered or inverted.

22.2 Containers and utensils shall not be handled by the surface which comes in contact with the food or drink.

22.3 Drain racks, trays and shelves shall be made of non corrodable material and shall be always kept clean and in good repair.

22.4 Laundered clothes shall be stored in a clean place until used.

23. STORAGE, SUPPLY AND SERVING OF FOOD

23.1 All food and drinks shall be stored in such a manner as to be protected from dust, flies, vermin, unnecessary handling, overhead leakage, sewage back flow, and other contamination. Evidence of the presence of rodents, roaches, ants, or other vermins shall be considered as a violation of this section. Food or drink shall not be stored or prepared beneath overhead sewer or drain pipes unless such pipes are provided with suitable means to carry off possible leakage or condensation.

23.2 Food shall not be stored on floors which are subject to flooding from sewage back-flow, such as those below street level.

23.3 All food shall be handled and served in such a manner as to minimize the opportunities for contamination. Contact with all food shall be avoided as far as possible. As far as possible, cooked food shall be served hot.

24. HYGIENIC REQUIREMENTS FOR FOOD HANDLERS

24.1 Every food handler shall be medically examined by an authorized registered medical practitioner and the examination shall include X-ray of the chest for tuberculosis. The examination shall also include: examination of stool for protozoal and helminthic infestation for those parasites which are transmitted by ingestion, and for the presence of *Salmonella*, *Shigella* species and *Vibrio cholerae*; urine; and blood examination for venereal diseases. Subsequently, the food handler shall be medically examined once in a year or more frequently, if necessary, to ensure that he is medically fit and free from communicable diseases. A record of such examination shall be maintained.

24.1.1 It shall be impressed on all food handlers that they should notify the medical officer or management, cases of fever, vomiting, diarrhoea, typhoid, dysentery, boils, cuts and sores and ulcers (however small), discharging ears and notifiable diseases occurring in their own homes and families.

24.1.2 No food handler who is suspected to be suffering from any of the disorders listed in **24.1.1** shall be permitted to handle food or drink at any stage. The supervisor shall check the personal hygiene of the workers before the start of work and whenever they enter the kitchen after any absence.

24.2 Food handlers shall keep their finger nails short and clean and wash their hands with soap or detergent and water before commencing work and after each absence, specially after using sanitary convenience. Towels used for drying hands should be clean. No food handler shall allow his hands or any part of his body or clothing to come into contact with the food. He should adopt strict hygienic practices so as to avoid adding any microbial contamination to the material.

24.3 All food handlers shall be inoculated and vaccinated against the enteric groups of diseases once a year and against smallpox once in two years. In case of an epidemic all workers shall be inoculated. A record shall be maintained.

24.4 No food handler shall be allowed to work without proper clothing and footwear.

24.5 Food handler shall be provided with clean uniforms (preferably white) or aprons or both and clean washable caps, where necessary.

24.5.1 Separate room or place for changing the clothes shall be provided. The clothes shall not be hung in the kitchen.

24.5.2 The uniforms shall not be worn outside the kitchen but put on just before starting the work and changed when leaving.

24.6 Eating, spitting, nose cleaning or the use of tobacco in any form or chewing betel leaves shall be prohibited in the central kitchen, food compartment and food distribution hall. Notice to this effect shall be prominently displayed and enforced.

24.7 Sufficient and suitable sanitary conveniences shall be provided, maintained and kept clean in every central kitchen and food distribution hall. The conveniences shall be properly lighted. Separate conveniences shall be provided for each sex. No convenience shall open directly into the central kitchen or the food distribution hall. The convenience shall always be maintained clean and in good repairs.

24.8 Sufficient number of wash basins with adequate provision of nail brushes, soap and towels, latrines and urinals in the prescribed manner should be provided, conveniently situated and accessible to food handlers and beneficiaries (*see also Table 3 of IS:1172-1971**). The wash basins should be installed in or alongside the sanitary conveniences.

25. FOOD TRANSPORT VEHICLES

25.1 The vehicle shall be of sufficient size depending upon the number of meals to be transported at one time. The food shall be kept in suitable containers with lids in the food transport vehicles.

25.1.1 The body of the food compartment shall be made of strong and durable material and designed in a manner appropriate for the type of the food to be transported.

25.1.2 The food compartment shall be constructed in such a way that its interior is well ventilated but made free from dust and flies.

25.1.3 The food compartment shall completely be separated from the driver's cabin without any inter-communication.

25.1.4 The innerside of the food compartment and floor shall be lined by durable non-corrosive and easily washable material and it shall be kept always in good repair.

25.1.5 The food compartment shall be opened only on the rear side, provided with self closing flyproof doors, which open on to the exterior.

25.2 The loading and unloading of vessels with food into the compartment of the transport vehicle shall be done in such a way that as far as possible no flies or dust enter the compartment.

25.2.1 In the food transport vehicles, the food shall be kept in suitable containers with lids.

*Code for basic requirements for water supply, drainage and sanitation (*second revision*).

25.3 At no time, shall the vessels be kept uncovered in the compartment.

25.4 No person shall sit inside the food compartment.

25.5 Animals and birds shall not be allowed inside the compartment.

25.6 While loading, the vehicle shall go very near to the loading room so that the vessels may be loaded directly from the loading room into the compartment. Similarly while unloading, the vehicle, shall go directly to the food distribution centre, and unload the vessels.

25.7 If there is a break down of the vehicle on the road, the transfer of vessels containing the food into the substitute vehicle shall also be done in such a way that neither the food nor the interior of the compartment is exposed to flies and dust.

25.8 After every trip, the whole food compartment shall be washed thoroughly with water, treated with suitable detergent solution and washed thoroughly with hot water and dried.

25.9 The transport vehicle shall always be kept in good working condition and repair.

25.9.1 The transport vehicle shall always be kept in garage when not in use.

26. FOOD DISTRIBUTION CENTRE

26.1 In every school, where the food is distributed to the beneficiaries a separate room shall be exclusively set apart for receiving the food from the central kitchen, and it shall be known as the food distribution centre.

26.1.1 The size of the room shall be not less than 20 m².

26.1.2 The room shall conform to all standards prescribed for central kitchen as regards, the site, building floors, walls, ceiling, doors and windows, lighting, ventilation, water supply, drainage and refuse, and garbage disposal.

26.2 All food and drinks shall be handled in such a manner as to minimize the opportunities for contamination. Manual handling of food, drinks shall be avoided.

26.3 There shall be as many plates and tumblers as the number of beneficiaries of the programme.

26.3.1 The plates and tumblers shall be made of enamel, aluminium or any other suitable material which is non-corrosive and easily washable and they shall be always in good repair condition without dents, cracks chips, pitting and any other form of deterioration on the surface.

26.4 Plate waste should be collected in a separate container near the washing place.

26.5 There shall be a wash room of the size of not less than 2×4 m attached to the food distribution centre for washing and sterilization of plates and tumblers.

26.5.1 If no dish-washing machine is used, there shall be at least three sinks with drain board attached and with hot and cold running water laid on to each sink. The first sink shall be reserved for utensil cleaning in running water, to remove the residual food and the second sink shall contain solution of suitable detergents and the third sink shall have water, hot enough to obviate the necessity for cloth drying. There should be a hot air oven to dry the washed utensils so as to avoid cloth drying with consequent contamination.

26.5.2 All eating and drinking utensils used over and over again in the schools (multi-use utensils) shall be thoroughly cleansed and effectively be subjected to bactericidal cleaning procedure prescribed in **21** after such usage.

26.5.3 There shall be adequate arrangements, preferably closed cupboards to store plates and tumblers used by the children and they shall be stored in a clean dry place protected from flies and dust and other contaminants and shall be handled in such a manner as to prevent contamination.

26.5.4 All plates, tumblers and other utensils used for serving food shall not be handled by the surface that comes in contact with food or drink.

26.5.5 When dish-washing machines are used, the bactericidal treatment given in **21** does not apply.

26.5.6 All utensils after cleaning by any of the procedures given in **21** or **26.5.1** shall not have any pathogenic bacteria, and not more than 200 non-pathogens per square centimetre of surface which comes in contact with food.

26.6 Where there is no continuous piped protected water supply, proper receptacles made of galvanized iron or other suitable material as approved by the Health Officer for the storage of adequate safe water for the purpose of drinking and washing utensils, shall be provided and such receptacles shall be fitted with a tight fitting lid or cover at the top with lock and key arrangements and screw tap at the bottom for draining the residual water and cleaning the receptacle, and a tap or taps on the sides 10 cm above the bottom level to draw water. The receptacles shall be placed on a stand or a platform 1 m above the ground level.

26.7 Water dispensers, if used, shall be so constructed that no portion thereof comes in contact with the rim or inner surface of the glass during filling. If drinking fountains are provided they shall be of a type having an angle flow water jet, and nozzle protected by a guard against contact with the lips and drip, and equipped with a pressure control adjustment and water cut off handle, pedal or a button.

26.8 Water coolers in which the water comes into contact with the ice shall not be used.

27. FOOD DISTRIBUTION HALL

27.1 As far as possible, there shall be a dining hall for children in each school exclusively for the consumption of midday meals.

27.1.1 When it is not possible, a verandah, a corridor, or a room may be used for serving food. Serving food in open spaces, under the trees, etc, shall as far as possible, be avoided.

27.1.2 The distribution hall shall conform to the standards prescribed for central kitchen as regards to site, building, floors, walls, ceilings, doors and windows, lighting, ventilation, drainage, refuse and garbage disposal. The size of the hall may depend on the number of beneficiaries to be fed at one time. However, 50 m² for every 100 children to be fed at one time is adequate.

27.1.3 The flooring of the hall shall be washed and dried after each time it is used.

27.2 There shall be sufficient number of wash hand basins fixed in convenient places preferably outside the dining halls with running water and draw off pipes attached to the drains, for children to wash their hands, before and after consumption of food. There shall be a minimum of 2 such basins and one additional basin for every 40 children or part thereof.

27.2.1 Clean towels shall be provided for use of children, at the wash basins and such towels shall be replaced as frequently as possible.

27.2.2 Soap and nail brushes shall be provided for use of children to wash their hands.

27.2.3 Durable and legible signs shall be provided conspicuously on the wall near wash hand basins, directing the children to wash their hands with soap and water before and after taking meals.

27.2.4 The supervisor should ensure that the children wash their hands properly before taking the meals.

27.2.5 The supervisor shall ensure suitable implementation of this code.

INDIAN STANDARDS

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Food Hygiene, Sampling and Analysis

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- 2491-1972 Code for hygienic conditions for food processing units (*first revision*)
- 5059-1969 Code for hygienic conditions for large scale biscuit manufacturing units and bakery units
- 5126 (Part I)-1969 Glossary of general terms for sensory evaluation of foods: Part I Methodology
- 5126 (Part II)-1969 Glossary of general terms for sensory evaluation of foods: Part II Quality characteristics
- 5398-1969 Methods for estimation of thiamine (vitamin B₁) in foodstuffs
- 5399-1969 Methods for estimation of riboflavin (vitamin B₂) in foodstuffs
- 5400-1969 Methods for estimation of nicotinic acid (niacin) in foodstuffs
- 5401-1969 Methods for detection and estimation of coliform bacteria in foodstuffs
- 5402-1969 Method for plate count of bacteria in foodstuffs
- 5403-1969 Method for yeast and mould count in foodstuffs
- 5404-1969 Code of practice for handling of samples for microbiological analysis
- 5835-1970 Methods for estimation of vitamin D in foodstuffs
- 5837-1970 Code for hygienic conditions for soft drinks manufacturing units
- 5838-1970 Methods for estimation of vitamin C in foodstuffs
- 5839-1970 Code for hygienic conditions for manufacture, storage and sale of ice-creams
- 5886-1970 Methods for estimation of carotenes and vitamin A (Retinol) in foodstuffs
- 5887-1970 Methods for detection of bacteria responsible for food poisoning and food-borne diseases
- 6540-1972 Code for hygienic conditions for manufacture and handling of ice for human consumption
- 6542-1972 Code for hygienic conditions for fruit and vegetable canning units

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Beverages	Meat and meat products
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Coffee and its products	Pesticides, technical grade and general
Dairy equipment	Propagation materials
Dairy industry, layout plans	Regulated market yards
Dairy industry, methods of test	Sensory evaluation
Dairy laboratory apparatus	Spices and condiments
Dairy products	Starch derived products
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